

In the Claims

Claim 1. (Currently amended) A polymerizable adhesive or filling composition for large assemblies comprising from about 5 to about 75 percent, by weight, of a thermoplastic or partially thermoplastic polymer or elastomer, from about 0.5 to about 35 percent, by weight, of an unsaturated polyester resin or vinyl ester resin, and about 20 to about 80 percent of an alkyl acrylate or methacrylate monomer, wherein at least one thermoplastic or partially thermoplastic polymer or elastomer is crosslinked or partially crosslinked.

Claim 2. (Currently amended) A polymerizable adhesive or filling composition for large assemblies comprising from about 10 to about 60 percent by weight of a thermoplastic or partially thermoplastic polymer or elastomer, from about 1 to about 25 percent by weight of an unsaturated polyester resin or vinyl ester resin, and about 30 to about 80 percent of an alkyl acrylate or methacrylate monomer, wherein at least one thermoplastic or partially thermoplastic polymer or elastomer is crosslinked or partially crosslinked.

Claim 3. (Currently amended) A polymerizable adhesive or filling composition for large assemblies comprising from about 15 to about 50 percent by weight of a thermoplastic or partially thermoplastic polymer or elastomer, from about 2 to about 20 percent by weight of an unsaturated polyester resin or vinyl ester resin, and

about 40 to about 70 percent of an alkyl acrylate or methacrylate monomer, wherein at least one thermoplastic or partially thermoplastic polymer or elastomer is crosslinked or partially crosslinked.

Claim 4. (Original) The polymerizable adhesive or filling composition of Claim 1 wherein the thermoplastic or partially thermoplastic polymer comprises a core-shell polymer or impact modifier.

Claim 5. (Original) The polymerizable adhesive or filling composition of Claim 1 wherein the thermoplastic or partially thermoplastic polymer comprises a thermoplastic resin or mixtures of resins.

Claim 6. (Original) The polymerizable adhesive or filling composition of Claim 1 wherein the thermoplastic or partially thermoplastic polymer comprises an elastomer or mixture of elastomers and a core-shell polymer or impact modifier.

Claim 7. (Currently amended) The polymerizable adhesive or filling composition of Claim 1 wherein the thermoplastic or partially thermoplastic polymer or elastomer is selected from the group consisting of a ~~nitrile elastomer, a liquid nitrile polymer, a polymer or copolymer of chloroprene, acrylonitrile, styrene, butadiene, isoprene, ethylene, propylene, epichlorohydrine, an acrylate or methacrylate monomer, a chlorinated polymer or elastomer, a chlorinated polyethylene or ethylene copolymer, chlorosulfonated~~

~~polyethylene or ethylene copolymer, and mixtures thereof.~~
a nitrile elastomer, a liquid nitrile polymer, a
chlorinated polymer or elastomer, a polymer or copolymer
of chloroprene, chlorinated polyethylene, chlorosulfonated
polyethylene, epichlorohydrin polymers, polymers and
copolymers of butadiene, isoprene and ethylene-propylene
and ethylene-butylene with acrylonitrile and styrene, an
acrylate or methacrylate polymer or copolymer, and
mixtures of the above.

Claim 8. (Currently amended) The polymerizable adhesive or filling composition of Claim 4 further comprising a thermoplastic or partially thermoplastic polymer or elastomer selected from the group consisting of ~~a nitrile elastomer, a liquid nitrile polymer, a polymer or copolymer of chloroprene, acrylonitrile, styrene, butadiene, isoprene, ethylene, propylene, epichlorohydrine, an acrylate or methacrylate monomer, a chlorinated polymer or elastomer, a chlorinated polyethylene or ethylene copolymer, chlorosulfonated polyethylene or ethylene copolymer, and mixtures thereof.~~
a nitrile elastomer, a liquid nitrile polymer, a
chlorinated polymer or elastomer, a polymer or copolymer
of chloroprene, chlorinated polyethylene, chlorosulfonated
polyethylene, epichlorohydrine polymers, polymers and
copolymers of butadiene, isoprene and ethylene-propylene
and ethylene-butylene with acrylonitrile and styrene, an

acrylate or methacrylate polymer or copolymer, and mixtures of the above.

Claim 9. (Cancelled)

Claim 10. (Original) The polymerizable adhesive or filling composition of Claim 1 wherein the alkyl acrylate or methacrylate monomers comprise a C1-C6 acrylate or methacrylate monomer selected from the group consisting of methyl methacrylate, ethyl methacrylate, hydroxyethyl methacrylate, propyl methacrylate, hydroxypropyl methacrylate, butyl methacrylate, hexamethyl methacrylate, hexyl methacrylate, cyclohexyl methacrylate, methyl acrylate, ethyl acrylate, hydroxyethyl acrylate, propyl acrylate, hydroxypropyl acrylate, butyl acrylate, hexyl acrylate, cyclohexyl methacrylate, or mixtures thereof.

Claim 11. (Original) The polymerizable adhesive or filling composition of Claim 1 wherein the thermoplastic or partially thermoplastic polymer is selected from the group consisting of a blend of two or more thermoplastic or partially thermoplastic polymers, a blend of two or more elastomers, or at least one elastomer and at least one thermoplastic or partially thermoplastic polymer or mixtures thereof.

Claim 12. (Original) The polymerizable adhesive or filling composition of Claim 4 wherein the core-shell polymer or impact modifier is selected from the group consisting of ABS, MABS, MBS, and or all-acrylic and mixtures thereof.

Claim 13. (Currently amended) The polymerizable adhesive or filling composition of Claim 1 wherein the thermoplastic polymer is selected from the group consisting of ~~polystyrene, acrylic, styrene/acrylic, styrene/acrylonitrile, ABS, MABS, and polyvinyl chloride~~ and mixtures thereof. polystyrene and copolymers thereof, acrylic polymers and copolymers, polymers of acrylonitrile including styrene/acrylonitrile, ABS, and MABS, chlorinated polymers including polyvinyl chloride polymers and copolymers and mixtures of the above.

Claim 14. (Currently amended) The polymerizable adhesive or filling composition of Claim 6 wherein the elastomer or mixture of elastomers is selected from the group consisting of ~~soluble or lightly crosslinked polychloroprene, chlorinated polyethylene, chlorosulfonated polyethylene, epichlorohydrine, polymers or co-polymers, styrene-butadiene and styrene-isoprene polymers and block copolymers, soluble, lightly crosslinked or liquid polymers of acrylonitrile, butadiene and isoprene, acrylic, ethylene acrylic elastomers, and mixtures thereof.~~ soluble or lightly crosslinked polychloroprene, chlorinated polyethylene, chlorosulfonated polyethylene, poly(epichlorohydrin), styrene-butadiene and styrene-isoprene polymers and block copolymers, soluble, lightly crosslinked or liquid polymers of acrylonitrile, butadiene and isoprene, acrylic

elastomers, ethylene acrylic elastomers, and mixtures thereof.

Claim 15. (Currently amended) The polymerizable adhesive or filling composition of Claim 11 wherein the thermoplastic polymer is selected from the group consisting of ~~polystyrene, acrylic, styrene/acrylic, styrene/acrylonitrile, ABS, MABS, chlorinated polyethylene, and polyvinyl chloride and mixtures thereof.~~ polystyrene and copolymers thereof, acrylic polymers and copolymers, polymers of acrylonitrile including styrene/acrylonitrile, ABS, and MABS, chlorinated polymers including polyvinyl chloride polymers and copolymers and mixtures of the above.

Claim 16. (Currently amended) The polymerizable adhesive or filling composition of Claim 11 wherein the elastomer or mixture of elastomers is selected from the group consisting of ~~soluble or lightly crosslinked polychloroprene, chlorinated polyethylene, chlorosulfonated polyethylene, epichlorohydrine, polymers or co-polymers, styrene-butadiene and styrene-isoprene polymers and block copolymers, soluble, lightly crosslinked or liquid polymers of acrylonitrile, butadiene and isoprene, acrylic, ethylene acrylic elastomers, and mixtures thereof.~~ soluble or lightly crosslinked polychloroprene, chlorinated polyethylene, chlorosulfonated polyethylene, poly(epichlorohydrin), styrene-butadiene and styrene-isoprene polymers and block

copolymers, soluble, lightly crosslinked or liquid polymers of acrylonitrile, butadiene and isoprene, acrylic elastomers, ethylene acrylic elastomers, and mixtures thereof.

Claim 17. (Original) The polymerizable adhesive or filling composition of Claim 1 wherein the unsaturated polyester or vinyl ester resin is selected from the group consisting of unsaturated orthophthalic, isophthalic, terephthalic, and dicyclopentadiene polyester resins, vinyl ester resins, halogenated polyester resins, halogenated vinyl ester resins, and mixtures thereof.

Claim 18. (Original) The polymerizable adhesive or filling composition of Claim 1 further comprising from about 0.01 to about 20 percent by weight of a polymerizable organic acid monomer or oligomer.

Claim 19. (Original) The polymerizable adhesive or filling composition of Claim 18 wherein the polymerizable organic acid monomer comprises methacrylic acid or acrylic acid or mixtures thereof.

Claim 20. (Original) The polymerizable adhesive or filling composition of Claim 18 wherein the polymerizable organic acid monomer is selected from the group consisting of maleic acid, fumaric acid, itaconic acid and mixtures thereof.

Claim 21. (Original) The polymerizable adhesive or filling composition of Claim 18 wherein the polymerizable

organic acid monomer or oligomer comprises a vinyl substituted phosphate ester.

Claim 22. (Original) The polymerizable adhesive or filling composition of Claim 1 further comprising from about 0.1 to about 10 percent by weight of a viscosity control agent.

Claim 23. (Original) The polymerizable adhesive or filling composition of Claim 1 further comprising one or more materials selected from the group consisting of catalysts, initiators, reducing agents, activators, and promoters and mixtures thereof.

Claim 24. (Original) The polymerizable adhesive or filling composition of Claim 1 further comprising a chlorosulfonated polymer, an organic sulfonyl chloride and a dihydropyridine.

Claim 25. (Original) The polymerizable adhesive or filling composition of Claim 1 further comprising a hydroperoxide, a dione or other chelator, an organometallic salt and an aromatic amine.

Claim 26. (New) The polymerizable adhesive or filling composition of Claim 1 wherein at least one thermoplastic or partially thermoplastic polymer or elastomer is insoluble or only partially soluble in the monomer.

Claim 27. (New) The polymerizable adhesive or filling composition of Claim 1 wherein at least one thermoplastic or partially thermoplastic polymer or elastomer provides gel-like properties in the composition prior to curing.

Claim 28. (New) The polymerizable adhesive or filling composition of Claim 1 wherein the thermoplastic or partially thermoplastic polymer or elastomer is selected from the group consisting of diene-based polymers or copolymers, acrylic-based polymers or copolymers and chlorinated polymers and mixtures thereof.

Claim 29. (New) A polymerizable adhesive or filling composition for large assemblies comprising from about 5 to about 75 percent, by weight, of a thermoplastic or partially thermoplastic polymer or elastomer, from about 0.5 to about 35 percent, by weight, of an unsaturated polyester resin or vinyl ester resin, and about 20 to about 80 percent of an alkyl acrylate or methacrylate monomer, wherein at least one thermoplastic or partially thermoplastic polymer or elastomer is crosslinked or partially crosslinked, wherein at least one thermoplastic or partially thermoplastic polymer or elastomer is insoluble or only partially soluble in the monomer, wherein at least one thermoplastic or partially thermoplastic polymer or elastomer provides gel-like properties in the composition prior to curing, and wherein the thermoplastic or partially thermoplastic polymer or elastomer is selected from the group consisting of diene-based polymers or copolymers, acrylic-based polymers or copolymers and chlorinated polymers and mixtures thereof.

Discussion of Amendments to the Claims

The applicants have amended independent Claims 1, 2 and 3 to introduce a limitation that the thermoplastic or partially thermoplastic polymer or elastomer is "crosslinked or partially crosslinked." Basis for this amendment is contained on page 25, lines 14 - 17 and further at page 25, lines 17 - page 26, line 13.

The applicants have amended Claims 7 and 8 and cancelled Claim 9 to overcome a rejection by the USPTO under 35 U.S.C. § 112. The group of materials claimed in Claims 7 and 8 has been revised so that the listing of thermoplastic or partially thermoplastic polymers or elastomers is correct, without adding any new subject matter. For ease of reference applicants have cancelled the group of materials that was listed in the claims and restated them with corrected language.

Claims 13 - 16 have also been amended in a similar manner to the amendments to Claims 7 and 8 to overcome a rejection under 35 U.S.C. § 112 without adding any new subject matter.

Claim 26 is added to provided that at least one thermoplastic or partially thermoplastic polymer or elastomer of Claim 1 is "insoluble or partially insoluble in the monomer." Basis for this amendment is contained on page 26, lines 8 - 13.

Claim 27 is added to provide that at least one thermoplastic or partially thermoplastic polymers of Claim

1 provide gel-like properties in the compositions prior to curing. Basis for this amendment is contained on page 25, line 23 through page 26, line 2.

Claim 28 is added to provide that the thermoplastic or partially thermoplastic polymer or elastomer of Claim 1 is selected from these specific types of materials. Basis for this amendment is contained on page 26, line 14 through page 27, line 19.

Claim 29 is a combination of Claims 1, 26, 27 and 28 in independent form.

No new subject matter is introduced by any of the amendments to the claims or the new claims.